

WHAT IS CLAIMED IS:

1. A method for producing at least one of an antiscatter grid and collimator for a radiation type, formed from a base body of predeterminable geometry having transmission channels for primary radiation of the radiation type which extend between two opposite surfaces of the base body, comprising:

setting the geometry of the base body;

constructing the base body according to the set geometry by use of a rapid prototyping technique through layer-wise solidification of a structural material, the structural material being substantially transmissive to the radiation type, under the action of radiation; and

coating inner surfaces of the base body in the transmission channels with a material, which strongly absorbs the radiation type, up to a layer thickness which suffices to absorb virtually completely incident secondary radiation of the radiation type, wherein the opposite surfaces of the base body are not coated nor aftertreated in such a way that they bear, at most, a coating of greatly reduced layer thickness made from the material strongly absorbing the radiation type.

2. A method for producing at least one of an antiscatter grid and collimator for a radiation type, formed from a base body of predeterminable geometry having transmission channels for primary radiation of the radiation type which extend between two opposite surfaces of the base body, comprising:

setting the geometry of the base body;

constructing a molding according to at least one of the set geometry of the base body and a negative mold thereof by use of a rapid prototyping technique through layer-wise solidification of a structural material under the action of radiation;

producing at least a single replication of the molding in order to form the base body from a material which is substantially transmissive to the radiation type; and

coating the base body with a material, which strongly absorbs the radiation type, up to a layer thickness which suffices to absorb virtually completely incident secondary radiation of the radiation type, wherein the opposite surfaces of the base body are not coated, nor aftertreated in such a way that they bear, at most, a coating of

greatly reduced layer thickness made from the material strongly absorbing the radiation type.

3. The method as claimed in claim 1, wherein the aftertreatment of the opposite surfaces of the base body is performed by a chemical process for at least one of removing and reducing the coating.
4. The method as claimed in claim 1, wherein the aftertreatment of the opposite surfaces of the base body is performed by a mechanical process for at least one of removing and reducing the coating.
5. The method as claimed in claim 1, wherein the aftertreatment of the opposite surfaces of the base body is performed by a chemical-mechanical process for at least one of removing and reducing the coating.
6. The method as claimed in claim 1, wherein the method of stereolithography is used as the rapid prototyping technique for at least one of construction of the base body and molding.
7. The method as claimed in claim 1, wherein the coating is performed by at least one of sputtering, vapor deposition and electrolytic deposition.
8. The method as claimed in claim 1, wherein the geometry of the base body is set in such a way that at least one of a focused antiscatter grid and collimator is formed.
9. The method as claimed in claim 1, for producing an antiscatter grid for x-radiation.
10. The method as claimed in claim 1, for producing a collimator for gamma radiation.

11. An antiscatter grid for a radiation type, comprising:

a base body of predeterminable geometry including transmission channels for primary radiation of the radiation type which extend between two opposite surfaces of the base body, the base body being formed from a first material which is substantially transmissive to the radiation type, wherein inner surfaces of the base body are coated in the transmission channels with a second material which strongly absorbs the radiation type up to a layer thickness which suffices to virtually completely absorb incident secondary radiation of the radiation type, and wherein the opposite surfaces of the base body bear, at most, only a coating which is made from the second material, strongly absorbing the radiation type, and wherein the opposite surfaces of the base body includes a greatly reduced layer thickness.

12. The antiscatter grid as claimed in claim 11, wherein the first material is a polymer material.

13. The antiscatter grid as claimed in claim 11, wherein the base body has a geometry with the aid of which a focused antiscatter grid is formed.

14. The antiscatter grid as claimed in claim 11, wherein the second material strongly absorbs x-radiation, and the first material is substantially transmissive to x radiation.

15. The antiscatter grid as claimed in claim 11, wherein the second material strongly absorbs gamma radiation, and the first material is substantially transmissive to gamma radiation.

16. The method as claimed in claim 2, wherein the aftertreatment of the opposite surfaces of the base body is performed by a chemical process for at least one of removing and reducing the coating.

17. The method as claimed in claim 2, wherein the aftertreatment of the opposite surfaces of the base body is performed by a mechanical process for at least one of removing and reducing the coating.

18. The method as claimed in claim 2, wherein the aftertreatment of the opposite surfaces of the base body is performed by a chemical-mechanical process for at least one of removing and reducing the coating.
19. The method as claimed in claim 2, wherein the method of stereolithography is used as the rapid prototyping technique for at least one of construction of the base body and molding.
20. The method as claimed in claim 2, wherein the coating is performed by at least one of sputtering, vapor deposition and electrolytic deposition.
21. The method as claimed in claim 2, wherein the geometry of the base body is set in such a way that at least one of a focused antiscatter grid and collimator is formed.
22. The method as claimed in claim 2, for producing an antiscatter grid for x-radiation.
23. The method as claimed in claim 2, for producing a collimator for gamma radiation.
24. The method as claimed in claim 3, for producing an antiscatter grid for x-radiation.
25. The method as claimed in claim 3, for producing a collimator for gamma radiation.
26. The method as claimed in claim 4, for producing an antiscatter grid for x-radiation.
27. The method as claimed in claim 4, for producing a collimator for gamma radiation.

28. The method as claimed in claim 5, for producing an antiscatter grid for x-radiation.
29. The method as claimed in claim 5, for producing a collimator for gamma radiation.
30. The antiscatter grid as claimed in claim 12, wherein the base body has a geometry with the aid of which a focused antiscatter grid is formed.
31. A collimator for a radiation type, comprising:
a base body of predeterminable geometry including transmission channels for primary radiation of the radiation type which extend between two opposite surfaces of the base body, the base body being formed from a first material which is substantially transmissive to the radiation type, wherein inner surfaces of the base body are coated in the transmission channels with a second material which strongly absorbs the radiation type up to a layer thickness which suffices to virtually completely absorb incident secondary radiation of the radiation type, and wherein the opposite surfaces of the base body bear, at most, only a coating which is made from the second material, strongly absorbing the radiation type, and wherein the opposite surfaces of the base body includes a greatly reduced layer thickness.
32. The collimator as claimed in claim 31, wherein the first material is a polymer material.
33. The collimator as claimed in claim 31, wherein the base body has a geometry with the aid of which a focused collimator is formed.
34. The collimator as claimed in claim 31, wherein the second material strongly absorbs x-radiation, and the first material is substantially transmissive to x radiation.

35. The collimator as claimed in claim 31, wherein the second material strongly absorbs gamma radiation, and the first material is substantially transmissive to gamma radiation.
36. The collimator as claimed in claim 32, wherein the base body has a geometry with the aid of which a focused collimator is formed.